SEQUENCE LISTING

<110> Mercola, Daniel
Adamson, Eileen
de Belle, Ian

<120> Isolation and Identification of Control Sequences and Genes Modulated by Transcription

<130> ADA.001CIP1

<140> US 10/032,260
<141> 2001-12-20

<150> US 09/270,391
<151> 1999-03-16

<160> 27

<170> PatentIn version 3.1

<210> 1
<211> 20
<212> DNA
<213> Homo sapiens

<400> 1
tcctcggcga ctccttcctc 20

<210> 2
<211> 23
<212> DNA
<213> Homo sapiens

<400> 2
taatacgact cactataggg aga 23

<210> 3
<211> 20
<212> PRT
<213> Homo sapiens

<400> 3

Cys Asp Asn Phe Ser Ala Tyr Gly Trp Cys Pro Leu Gly Pro Gln Cys
1 5 10 15

Pro Gln Ser His
20

<210> 4
<211> 31
<212> PRT
<213> Homo sapiens

<400> 4

Ile Ile Asp Thr Asp Glu Ala Ala Ala Glu Asp Lys Arg Arg Arg Arg
1 5 10 15

[redacted]

SEQUENCE LISTING

<110> Mercola, Daniel
Adamson, Eileen
de Belle, Ian

<120> Isolation and Identification of Control Sequences and Genes Modulated by Transcription Factors

<130> ADA.001CIP1

<140> US 10/032,260
<141> 2001-12-20

<150> US 09/270,391
<151> 1999-03-16

<160> 27

<170> PatentIn version 3.1

<210> 1
<211> 20
<212> DNA
<213> Homo sapiens

<400> 1
tcctcggcga ctccttcctc
20

<210> 2
<211> 23
<212> DNA
<213> Homo sapiens

<400> 2
taatacgact cactataggg aga
23

<210> 3
<211> 20
<212> PRT
<213> Homo sapiens

<400> 3

Cys Asp Asn Phe Ser Ala Tyr Gly Trp Cys Pro Leu Gly Pro Gln Cys
1 5 10 15

Pro Gln Ser His
20

<210> 4
<211> 31
<212> PRT
<213> Homo sapiens

<400> 4

Ile Ile Asp Thr Asp Glu Ala Ala Ala Glu Asp Lys Arg Arg Arg Arg
1 5 10 15

Arg Arg Arg Glu Lys Arg Lys Arg Ala Leu Leu Asn Leu Pro Gly
20 25 30

<210> 5
<211> 13
<212> PRT
<213> Homo sapiens

<400> 5

His Arg Ala Gly Phe Asp Ala Phe Met Thr Gly Tyr Val
1 5 10

<210> 6
<211> 20
<212> DNA
<213> Homo sapiens

<400> 6
taccataagg gcaatgacaa
20

<210> 7
<211> 21
<212> DNA
<213> Homo sapiens

<400> 7
catctcacac aggtcagcgg t
21

<210> 8
<211> 24
<212> DNA
<213> Homo sapiens

<400> 8
cgcggatccg cagcggccaa ggcc
24

<210> 9
<211> 23
<212> DNA
<213> Homo sapiens

<400> 9
ccggaattcg caaatttcaa ttg
23

<210> 10
<211> 20
<212> DNA
<213> Homo sapiens

<400> 10
gggctgaagg gacccccctc
20

<210> 11
<211> 24
<212> DNA
<213> Homo sapiens

<400> 11
aattcgaagc ttggatccga gcag
24

<210> 12
<211> 20

<212> DNA
<213> Homo sapiens

<400> 12
ctgctcggat ccaagcttcg
20

<210> 13
<211> 43
<212> DNA
<213> Homo sapiens

<400> 13
gatcactcgc gggggcgagg atgagcgccc ccgctcctct tag
43

<210> 14
<211> 42
<212> DNA
<213> Homo sapiens

<400> 14
gatcactcac atttacaagg atgagtgtaa atgttcctct ag
42

<210> 15
<211> 2007
<212> DNA
<213> Homo sapiens

<400> 15
taatacgact cactataggg agacgagcgg tgtcatggcc gccgacagtg acgatggcgc
60

agtttcagct cccgcagctt ccgacggtgg tgtcagcaaa agcacaacat ctggggagga
120

gctagtagtc caggttcccg tagtggatgt gcaaagcaac aacttcaagg agatgtggcc
180

atccctcctg ctagccataa agacagctaa tttcgttggc tgtggacacg gagctgagtg
240

ggcttgggga caagaagagt ttgctgaacc agtgcattga ggaacgttac aaggccgtgt
300

gtcatgctgc caggacccgt tctatccttt ccctgggcct cgcctgcttc aagcggcagc
360

cagacaaggg tgaacattcc tatctggctc aagtgttcaa tctcactctg ctgtgcatgg
420

aggagtatgt catagaacca aagtctgtgc agttcctgat acagcatggc ttcaacttca
480

accagcagta tgcccaaggc atcccctacc ataagggcaa tgacaagggt gatgagagcc
540

agagccagtc agtacggacc ctattcctgg agctaatccg aagcccgccg gcccctgttg
600

ctacacaatg gccttataga cttggtgttc ctgtaccaaa acttctatgc acacctccct
660

gagagtctgg gaaccttcac cgctgacctg tgtgagatgt tcccagcagg catttatgac
720

accaaatatg ctgctgagtt tcatgcccgt ttcgtggcct cctacttaga atatgccttc
780

cggaaatgtg ttttaggtgc tgaggattca gcagtgaaca aaacagacca caaaaccctg
840

ctcttatgga gcttatatgc tagtggacca ttaccctctt gcgctgttgc agtgaacggg
900

aaaatgggaa gcagcgggca gctggcagcc cacaccttac cctggagttc tgcaactatc
960

cttccagcat gagggaccat attgattacc gctgctgcct gcccccagca acccaccgtc
1020

ctcatcccac cagcatctgt gacaacttct cggcttatgg ctggtgcccc ctgggaccac
1080

agtgtcctca gtctcacgat attgacccta tcattgacac tgatgaggct gcggcagagg
1140

acaagcggcg acggcgacga cgtagggaaa aacggaagag ggctttattg aacctaccgg
1200

ggacacagac ctctggggaa gctaaggatg gtcctcccaa gaagcaggtc tgtggggata
1260

gcatcaagcc tgaagaaacc gagcaggagg tggctgccga tgaaactagg aacctgcctc
1320

actccaagca aggcaacaaa aatgacttag agatggggat taaggcagca aggcctgaaa
1380

tagctgatag agctacctca gaagtgccag ggagccaagc cagtcctaac ccagtgcctg
1440

ggggtggatt gcaccgggct ggttttgatg cctttatgac aggttatgtg atggcctatg
1500

tggaagtgag ccagggaccg caaccctgca gctctggacc ctggctccct gaatgccaca
1560

ataaggtata tttgagtggc aaagctgtac ccctcacagt ggccaagagc cagttctctc
1620

gttcctccaa agcccacaat cagaagatga agctcacttg gggcagtagc tgatgcaact
1680

tccaccttgc tctcaggtgg aacagaggta ttttgggtct ctctagcctg aaatgtcatc
1740

ctcaactgct actgagtttg ggggaggggg aatgtcttga cagacatcac tgcattgccc
1800

tggaccgcct cctttatccc agtgtttgag gtacaagtaa gaaggctgac cagcacctgt
1860

aacactgact ttatttttaa gtctgaaaat gtcttgggaa agttttacaa aaaaaaaaat
1920

caacagaagc aagttatgaa aaaaaaaaaa aaaaaaaaac tcgaggggggg gcccggtacc
1980

caattctccc tatagtgagt cgtatta
2007

<210> 16
<211> 234
<212> PRT
<213> Homo sapiens

<400> 16

```
Met Arg Asp His Ile Asp Tyr Arg Cys Cys Leu Pro Pro Ala Thr His
1               5                  10                  15

Arg Pro His Pro Thr Ser Ile Cys Asp Asn Phe Ser Ala Tyr Gly Trp
            20                  25                  30

Cys Pro Leu Gly Pro Gln Cys Pro Gln Ser His Asp Ile Asp Pro Ile
        35                  40                  45

Ile Asp Thr Asp Glu Ala Ala Ala Glu Asp Lys Arg Arg Arg Arg Arg
    50                  55                  60

Arg Arg Glu Lys Arg Lys Arg Ala Leu Leu Asn Leu Pro Gly Thr Gln
65                  70                  75                  80

Thr Ser Gly Glu Ala Lys Asp Gly Pro Pro Lys Lys Gln Val Cys Gly
                85                  90                  95

Asp Ser Ile Lys Pro Glu Glu Thr Glu Gln Glu Val Ala Ala Asp Glu
            100                 105                 110

Thr Arg Asn Leu Pro His Ser Lys Gln Gly Asn Lys Asn Asp Leu Glu
        115                 120                 125

Met Gly Ile Lys Ala Ala Arg Pro Glu Ile Ala Asp Arg Ala Thr Ser
    130                 135                 140

Glu Val Pro Gly Ser Gln Ala Ser Pro Asn Pro Val Pro Gly Gly Gly
145                 150                 155                 160

Leu His Arg Ala Gly Phe Asp Ala Phe Met Thr Gly Tyr Val Met Ala
                165                 170                 175

Tyr Val Glu Val Ser Gln Gly Pro Gln Pro Cys Ser Ser Gly Pro Trp
            180                 185                 190
```



[redacted]

Leu Pro Glu Cys His Asn Lys Val Tyr Leu Ser Gly Lys Ala Val Pro
195 200 205

Leu Thr Val Ala Lys Ser Gln Phe Ser Arg Ser Ser Lys Ala His Asn
210 215 220

Gln Lys Met Lys Leu Thr Trp Gly Ser Ser
225 230

<210> 17
<211> 724
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (2)..(710)
<223> n= A, T, G, or C

<400> 17
gnngggngnn gnnnnnggggg gaacttntat cggtgcctac tcacngaaaa ggctgaagag
60

tctcccatgt ctacttcttt ctacacagac acagcaacca tccgatttct caatcttttc
120

cccacctttc ccccttttct attccacaaa accgccattg tcatcatggg ccgttctcaa
180

tgagctgttg ggtgagatat tagaattcta ctcacagaac gaaatgaaaa gtctcccatg
240

tctacttctt ctacacaaga cacagcaaca tccgatttct caatcctttc cccaactttc
300

ccccttttct antccacaan accgccattg tcatcatggg ncgttctcaa tgagctgttg
360

ggtgagatat tagaattctg ggctgggaat gagttcagcc tggtggaatg tgaacctgca
420

ncagtttggc atgaacgggc aaatgctgtg tancctccgg aaaggagcgc ttcctggaag
480

ctggcgcctg actttgtggg ngacatcctc cgggaaaang gttcactant tctaaagcgg
540

gcggcaacgc ggtggggctc caattcgccc taaantgngt ccgtattaca attcacnggg
600

cggccgtttt anaagtcctg nncggggaaa accnggggta nccaacttta tcnccctggn
660

ngaaancccc ccttncncaa cnggggtnan aaccnannng ggccncccnn tttgcccctc
720

ccaa
724

<210> 18
<211> 618
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n = A, T, C, or G

<220>
<221> misc_feature
<222> (437)..(618)
<223> n = A, T, C, or G

<400> 18
agaagcttga attcgagcag agaagcttga attcgagcag aattggccca attttgcctt
60

ataccacttt ccaatacctt cacttggagt gacttacact gtggttaatt gcagttacaa
120

tgaagagatt aacatgggaa tgtcataata attgaatcta aagaagacat aatttcaaaa
180

taagagcttg agtaataata ccattgtgta acaatctgat ttccatccct cttatttttc
240

ctatattatg cagtttagtt ctttactatc atgtgtttca tgtttgttcg gttttaccaa
300

cacatcatta gtaaattgaa tgtaaggctt ctcatttctt ttgtatccta catctaaaag
360

attttagtcc ttagaatcct cttgaaatgt tctccattta aaatggagaa atagttcatg
420

ctctctcatc taagtangag ctaaaatcta aaaaattaat aaataaaata gtccatcctc
480

taataataat aatgaatact gaanttgtta antaataatt aatttttgag aaggggttc
540

actaatgcgt ccaagctgga gtgcaatggc gtgatcacta anttctaaan cggcgccaac
600

gcggtggagc tccaantn
618

<210> 19
<211> 716
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n = A, T, C, or G

<220>
<221> misc_feature
<222> (3)..(711)
<223> n = A, T, C, or G

<400> 19
ggngtgggng nnnggggggg ggnntttnng gnncggntnt tctnaagtnt ccngggcctc
60

atnaaacagc gggccgagaa cgggncaana tgacaatggn ggttttgtgg aatagaaaag
120

ggggaaaggt ggggaaatga ttgagaaatc ggatggttgc tgtgtctgtg tagaaagaag
180

tagacatggg agacttttca ttttgttctg tgagtagaat tctgggctgg gaatgagttc
240

agcctggtga atgtgaacct gcaccagttt ggcatgaacg gncagatgct gtgtaacctc
300

ggcaaggagc gcttcctgga gctggcgcct gactttgtgg gcgacatcct ctggnacagg
360

ntccactagt tctagagcgg gcgccaccgc ggtggngctc caattcgccc tanagtgngt
420

cgtnttacaa ttcactggcc gtcgttttac aacgtcgtga ctgggaaaac cctggngtta
480

cccaacttaa tcgccttgca gcanatcccc ctttcgncag ctggngtnnt ancgangagg
540

nccgcaccgn ttgcccntcc caanaagttg cgcagcctgn atggggantg ggancgncct
600

gtnncgggng cantaagcgc ggngggtgtg gtggntangc ncancgtgnn cgnnnnannt
660

gnnagngcct tangccngnn ccttcgnttc tcccttcctt cnngnnangt ngcggg
716

<210> 20
<211> 619
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (326)..(609)
<223> n = A, T, C, or G

<400> 20
agaagcttga attcgagcag agaagcttga attcgagcag aattggccca attttgcctt
60

ataccacttt ccaatacctt cacttggagt gacttacact gtggttaatt gcagttacaa
120

tgaagagatt aacatgggaa tgtcataata attgaatcta aagaagacat aatttcaaaa
180

taagagcttg agtaataata ccattgtgta acaatctgat ttccatccct cttatttttc
240

ctatattatg cagtttaagt tctttactat catgtgtttc atgtttgttc ggttttacca
300

acacatcatt agtaaattga atgtanggct tctcatttct tttgtatcct acatctaaaa
360

gattttagtc tttagaatcc tcttgaaatg ttctccattt aaaatggaga aatagttcat
420

gctctctcat ctaantanga gctaaaatct aaaaaataaa taaataaaat antccatcct
480

ctaataataa taatgaatac tgaanttgta aataataatt aatttttgag aatggggttc
540

actaatgtcg tccaanctgg agtgcaatgg cgtgatcact agttctaaac cggcgccaac
600

gcggtgggnc tccaattcc
619

<210> 21
<211> 911
<212> DNA
<213> Homo sapiens

<400> 21
accacatcca gacaatgaga agccaaaacc ttcatccttc atgatttcct tagccctccc
60

taattcctat ttaccttggt gtagttacat tccttccctg ctgtataaac tcccaatttt
120

agtcagtaag ggagatggat ttgagataca tctcccaact ccttggcagc agcacctggt
180

taaagcctcc tttcctggca atactatagt ctcagtgatt ggctttcttt gtggtgagca
240

gcaggaccta gactgaaatt gtagtatttt ggtaacagta tctgctctcc attcaaatct
300

atgctcagcc atacagaatt atttttcag tttctttgaa tattctgcat attttcttct
360

acctctaagc ctccaaaaat aatctgaaaa gcagcaaaat cgccacaatg tggaatcaaa

420

ataggggtaa aaagcccttt agacattctt ttggcaataa actaactgaa cttagtagga
480

cctggctcat agagacttct ctctttagga agtggacatc tggtgactca agcatttggc
540

ttgaagcagt tttcagggga gtttcaactg caattccaca ggatttcatt accagctatt
600

tgcggtcttg ctttttcctt tgctggtact aaacaggtga catatatttt acattgataa
660

ttagtgtcat ctgacttgag gccactgctt ttcttcttag tttctggtgc cctttgcagt
720

agtgcctttc ctaccatttt acatttggca gactggaaca gctcaaatag ctccaagaaa
780

gaaaaaactg cctcctttgt ctattcaagg ctctcacttc accttaaatg cagaattttt
840

tctttttctt ttttttaag ttatgtatga ggatttttc ttttcttttt tctttttga
900

gacagggtct t
911

<210> 22
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (120)..(298)
<223> n = A, T, C, or G

<400> 22
acttgagtcc aggagttcaa ggctgtagtg agttgtgatt gcaccaccgc actccagcct
60

cgatgacaga gtgagaccct gtctgttaaa aaataataat aataatagat aatgggatan
120

gagtgtaaag aaagacagga tgcttcttag caaagttaca aaaaatatta atangtcttt
180

gtcacaaata tatgtttgcc tatgagctga gaagagaaaa tgaaaaagtg aaaataagat
240

ttctcaaggt acaactttga tgcagttcan gtcaaactta ngtaagattt tgttgtanag
300

tttgggaaat aaccattgtg gcaaggctgg aatgcaaatc gatttttttgc tgttacagaa
360

acagtaaatg aatttatggg attttatttt aatttagtta gctttttatg aggagaatt
419

<210> 23
<211> 565
<212> DNA
<213> Homo sapiens

<400> 23
ataattccat tcgattccac tcgatgattc cattcgagtt cattgactgt tccattccat
60

tccattcgat gatttcattc gagtccactc gatgattcta ttcgattgca ttcgataatt
120

ccattcgttt gcattcgata attccattcg attccattgg aggataattc catttgagtc
180

cattcgatga ttgttccatt cgattctatt cggtgattcc attcgattcc atttgataat
240

gattccaatc gagaccattc gatgattcca ttcaattcca ttcaatcatg atccctttcg
300

agtccattca atgattccat tccagtccat tcgatgattc catctgattc cattcaatga
360

atccattcga ttccattcta tgacgattcc attcatttca tctgatgatg attccattcg
420

attcattcag tgataccatt cgattcattc gatgatgatt caatcaattt aatcgatgat
480

tcattcgaat cattcgatga tgagtcatca tttcaattca tggtaattca ttcgtttcaa
540

tcgatggtgt tcatttgatc atcga
565

<210> 24
<211> 584
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (328)..(582)
<223> n = A, T, C, or G

<400> 24
agagcagtcc agtatatata catacatata caagctacaa gctgcatatg taatttaaaa
60

ttttctaata accacattta aaaaggtaaa aagaaactgt tgaaataaat tttaatatct
120

ttcattgaac ccaatatatg caaaatacta tcatttcaat tataaccaaa ttaaaattaa
180

ggagatattt tacaattttc atattaacgt ttccaattct ggtgtgaatt ttacactcac
240

cgaacatctc aattctgaca agtcatattt taagtgctca acagctacgt gaggatagtg
300

gctattatgt cacaaaatgc agctctangg atgaggacag tttacagaag atacttgagg
360

atacaggagc aagttaaatg gcagtttaag aaagcaaatc cangatgtgg gaaactccac
420

agaatanatg acctggtttc tcccttcact catccctcca aaatagaaat caatggcaga
480

aagaaaaaag anggaggctg ttgtancata aaatacttag ggacatacaa taaaaacagt
540

gtagggtttt gttgaanccg attcactaca atgattcaca antt
584

<210> 25
<211> 678
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (5)..(675)
<223> n = A, T, C, or G

<400> 25
ggggnnnntn tnnngnaaat ctctgngttc gggccccccc ancaaggtcg aggcctatcg
60

ataagctana tatcggaatt cctgcagccc gggggatctg atggttttat aaaggggagt
120

tgccctgcga aagctctctc ttacctgccg ccatgtaaga ccggactttg ctcctcatta
180

ggtcacccta gccatgtgga actgtgagtc cattaaacct ctttccttta taaattatgc
240

agtctcggat atgtctttat tagcaaggtg aaaatgaact aatacaaggg tcacgtggta
300

aatatattta atattaaaaa aaaatcttcc aaactatttt ccagagtgtc tgtacctttt
360

tacatttcca tgagcaacgt atgagtgatt tagtttcttt gacagcattt ggtatagtta
420

ctatttttta ttttagttgt tctcatcctg gacttaattt gaattttccc aatgatgagt
480

gatgttgaaa attttcttgt gcttacttgt catctggata ttctcgtcaa taaaatgtct
540

cttantatcn tttgcccatt ttcaantgga ttccttttgt gttttatcat tgaattttaa
600

gaattcttcn atttatagat atgaattaca gatanaatca tagatattat agatanatat
660

gagttatggt tcacnatt
678

<210> 26
<211> 508
<212> PRT
<213> Homo sapiens

<400> 26

Met Ala Ala Asp Ser Asp Asp Gly Ala Val Ser Ala Pro Ala Ala Ser
1 5 10 15

Asp Gly Gly Val Ser Lys Ser Thr Thr Ser Gly Glu Glu Leu Val Val
20 25 30

Gln Val Pro Val Val Asp Val Gln Ser Asn Asn Phe Lys Glu Met Trp
35 40 45

Pro Ser Leu Leu Ala Ile Lys Thr Ala Asn Phe Val Ala Val Asp Thr
50 55 60

Glu Leu Ser Gly Leu Gly Asp Arg Lys Ser Leu Leu Asn Gln Cys Ile
65 70 75 80

Glu Glu Arg Tyr Lys Ala Val Cys His Ala Ala Arg Thr Arg Ser Ile
85 90 95

Leu Ser Leu Gly Leu Ala Cys Phe Lys Arg Gln Pro Asp Lys Gly Glu
100 105 110

His Ser Tyr Leu Ala Gln Val Phe Asn Leu Thr Leu Leu Cys Met Glu
115 120 125

Glu Tyr Val Ile Glu Pro Lys Ser Val Gln Phe Leu Ile Gln His Gly
130 135 140

Phe Asn Phe Asn Gln Gln Tyr Ala Gln Gly Ile Pro Tyr His Lys Gly
145 150 155 160

```
Asn Asp Lys Gly Asp Glu Ser Gln Ser Gln Ser Val Arg Thr Leu Phe
                165                 170                 175

Leu Glu Leu Ile Arg Ala Arg Arg Pro Leu Val Leu His Asn Gly Leu
            180                 185                 190

Ile Asp Leu Val Phe Leu Tyr Gln Asn Phe Tyr Ala His Leu Pro Glu
        195                 200                 205

Ser Leu Gly Thr Phe Thr Ala Asp Leu Cys Glu Met Phe Pro Ala Gly
    210                 215                 220

Ile Tyr Asp Thr Lys Tyr Ala Ala Glu Phe His Ala Arg Phe Val Ala
225                 230                 235                 240

Ser Tyr Leu Glu Tyr Ala Phe Arg Lys Cys Glu Arg Glu Asn Gly Lys
                245                 250                 255

Gln Arg Ala Ala Gly Ser Pro His Leu Thr Leu Glu Phe Cys Asn Tyr
            260                 265                 270

Pro Ser Ser Met Arg Asp His Ile Asp Tyr Arg Cys Cys Leu Pro Pro
        275                 280                 285

Ala Thr His Arg Pro His Pro Thr Ser Ile Cys Asp Asn Phe Ser Ala
    290                 295                 300

Tyr Gly Trp Cys Pro Leu Gly Pro Gln Cys Pro Gln Ser His Asp Ile
305                 310                 315                 320

Asp Leu Ile Ile Asp Thr Asp Glu Ala Ala Ala Glu Asp Lys Arg Arg
                325                 330                 335

Arg Arg Arg Arg Arg Glu Lys Arg Lys Arg Ala Leu Leu Asn Leu Pro
            340                 345                 350
```

```
Gly Thr Gln Thr Ser Gly Glu Ala Lys Asp Gly Pro Pro Lys Lys Gln
        355                 360                 365

Val Cys Gly Asp Ser Ile Lys Pro Glu Glu Thr Glu Gln Glu Val Ala
    370                 375                 380

Ala Asp Glu Thr Arg Asn Leu Pro His Ser Lys Gln Gly Asn Lys Asn
385                 390                 395                 400

Asp Leu Glu Met Gly Ile Lys Ala Ala Arg Pro Glu Ile Ala Asp Arg
                405                 410                 415

Ala Thr Ser Glu Val Pro Gly Ser Gln Ala Ser Pro Asn Pro Val Pro
            420                 425                 430

Gly Gly Gly Leu His Arg Ala Gly Phe Asp Ala Phe Met Thr Gly Tyr
        435                 440                 445

Val Met Ala Tyr Val Glu Val Ser Gln Gly Pro Gln Pro Cys Ser Ser
    450                 455                 460

Gly Pro Trp Leu Pro Glu Cys His Asn Lys Val Tyr Leu Ser Gly Lys
465                 470                 475                 480

Ala Val Pro Leu Thr Val Ala Lys Ser Gln Phe Ser Arg Ser Ser Lys
                485                 490                 495

Ala His Asn Gln Lys Met Lys Leu Thr Gly Ser Ser
            500                 505
```

<210> 27
<211> 3935
<212> DNA
<213> Homo sapiens

<400> 27
agcttatatt ctaatgggga cagaaaagga ataatgaaca taagtaaatt ccataagatg
60

ttaggtgata aatattagca taaaaagcaa aaattagacc aagaggggaa aaaaaagagt
120

gccaaggtgg ggtttaatgt tgcaatttta aagactgtgg tcaaggtaga cccaaagcat
180

tctaagtgag tgcaaaggcc ccaaggaggg tgcctggtat gtctgtggta cagtaagtag
240

gtcaatgtgg ttagaatgga atgagatggg actgagtggt agaagaggtc agagaagtaa
300

accagatgag gtggggagag gagggtcaca aagtaccttа taggccattg gagggatttg
360

gctgccacac ccttgctctt agaaggcagt cctcttacta cagccttgca ggtccagtga
420

tccgggcacc atccgcctca tcccctcact atgctctagc caaggttgac tgaatttagt
480

tgcttaaaca cctcaagtgt gtctgcccac cttggggcct cacacaatcc atttcctctg
540

tttggactct tttatgcttt tacctaacac cttatcattt ttcaagtctt gactgaaatg
600

tccaaatcag gtcccctcat cttatcctat cacatatttc tgccttgtag ctcttaccta
660

atgtaatttt acattacttt gattctttcc atcagtgtgt acttcctgaa tttgactgta
720

aaaaacgact tgagtgcaag gactgattct cttgttgatt ggtgtgtgtc caaagtcagt
780

gccaggtaaa ctgtacacaa tagatacctg ttaaatgaat taatgggatg ggggatagtc
840

aaaagagttt ccctttttta ggataggaga aatccaaaga gtttttttat ttttgttttt
900

tttttgtttg tttgttttgt ttttagagac agtgtgtccc tcactttgct gctctgccac
960

tcaggctgga gtgcaataag aacatggctc actgcagcct cgacctcctg ggctcaagcc
1020

atcctctcac ctcagcctcc tgtagctggg actacaggtg cgcaccacca tgcccaacta
1080

atttttaatt ttctttttgt agagacaagg tttcactatg ttgcccaggc tagtcttgaa
1140

ctcctagggt caagcgatcc tcccaccttg gcctcctaag atgattacag gccataagcc
1200

actgcgcccg gcccaagcag ttctgaataa tgatgaaatg ggctcagttg agagaagctg
1260

aagattaact ataaacaatg agtaacaaag gagcactgga aggcagaggt ggatgggaat
1320

cgtagtgttt acggagggac tagtctccaa taggaatttt ttttttttt ttttttttga
1380

gacggagttt cgctcttgtt gcctaggctg aagtgcaaaa tggcgtgatc tcggctcacc
1440

gcaacctctg cctcccaggt tcaagcgatt ctcctgcctc agcctcccaa gtagtgggat
1500

tacaggcgcc cgcaccatac ccagctaatt ttttttgtac ttttagtaga gacggggttt
1560

caccatgttg gccaggctgg ttttgaactc cggacctcag gtaatccgcc cgcctcggcc
1620

tcccaaagtg ctgggattac aggcgtgagc caccgcgccc ggcctaggaa cctctttcaa
1680

attcaatcac cctctaggtc gactataccg cctagctgct tcacaatttg tcccttcctc
1740

gccatccata ctgccagcct taattcaagt tcacattatc acttgattgg attattacaa
1800

aagcttccct accaatcggt cgctcttaca ccctgggcag cctcctccga tggcccactc
1860

cccgcctctt tcactttctg gagatcactg agctctccat cctctctggg aatttaccga
1920

tgcccagaac gcccttcttt cccccacacg accctctcct agtctaactc ctgggcgtgc
1980

tttaagctca gctcaggcag cgtcaccttc tctggaaagc ccaaacccag ccaccccact
2040

acccgctacc cgcggcccac gctgatgaag acagcagaac acggaggccc cgcgttcccg
2100

ccgcgagagc aggagagaaa gattacctcc cgcgagctct agcgcgcccg gctttccggc
2160

gcactccagg gggcgtggct cgggtccacc cgggctgcga gccggcagca caggccaata
2220

ggcaattagc gcgcgccagg ctgccttccc cgcgccggac ccgggacgtc tgaacggaag
2280

ttcgacccat cggcgacccg acggcgagac cccgccccat ccccgactgc ctgaaccgcg
2340

ccaggagacg gaccgcaagt ccagcgtacc cacagacgac tcaggcggga gacgagcggt
2400

gtcatggccg ccgacagtga cgatggcgca gtttcagctc ccgcagcttc cgacggtggt
2460

gtcagcaaaa gcacaacatc tgggaggagc tagtagtcca ggttcccgta gtggatgtgc
2520

aaagcaacaa cttcaaggag atgtggccat ccctcctgct agccataaag acagctaatt
2580

tcgtggctgt ggacacggag ctgagtgggc ttggggacag gaagagtttg ctgaaccagt
2640

gcattgagga acgttacaag gccgtgtgtc atgctgccag gacccgttct atcctttccc
2700

tgggcctcgc ctgcttcaag cggcagccag acaagggtga acattcctat ctggctcaag
2760

tgttcaatct cactctgctg tgcatggagg agtatgtcat agaaccaaag tctgtgcagt
2820

tcctgataca gcatggcttc aacttcaacc agcagtatgc ccaaggcatc ccctaccata
2880

agggcaatga caagggtgat gagagccaga gccagtcagt acggacccta ttcctggagc
2940

taatccgagc ccgccggccc ctggtgctac acaatggcct tatagacttg gtgttcctgt
3000

accagaactt ctatgcacac ctccctgaga gtctgggaac cttcaccgct gacctgtgtg
3060

agatgttccc agcaggcatt tatgacacca aatatgctgc tgagtttcat gcccgtttcg
3120

tggcctccta cttagaatat gccttccgga aatgtgaacg ggaaaatggg aagcagcggg
3180

cagctggcag cccacacctt accctggagt tctgcaacta tccttccagc atgagggacc
3240

atattgatta ccgctgctgc ctgcccccag caacccaccg tcctcatccc accagcatct
3300

gtgacaactt ctcggcttat ggctggtgcc ccctgggacc acagtgtcct cagtctcacg
3360

atattgacct tatcattgac actgatgagg ctgcggcaga ggacaagcgg cgacggcgac
3420

gacgtaggga aaaacggaag agggctttat tgaacctacc ggggacacag acctctgggg
3480

aagctaagga tggtcctccc aagaagcagg tctgtgggga tagcatcaag cctgaagaaa
3540

ccgagcagga ggtggctgcc gatgaaacta ggaacctgcc tcactccaag caaggcaaca
3600

aaaatgactt agagatgggg attaaggcag caaggcctga aatagctgat agagctacct
3660

cagaagtgcc agggagccaa gccagtccta acccagtgcc tgggggtgga ttgcaccggg
3720

ctggttttga tgcctttatg acaggttatg tgatggccta tgtggaagtg agccagggac
3780

cgcaaccctg cagctctgga ccctggctcc ctgaatgcca caataaggta tatttgagtg
3840

gcaaagctgt acccctcaca gtggccaaga gccagttctc tcgttcctcc aaagcccaca
3900

atcagaagat gaagctcact tggggcagta gctga
3935